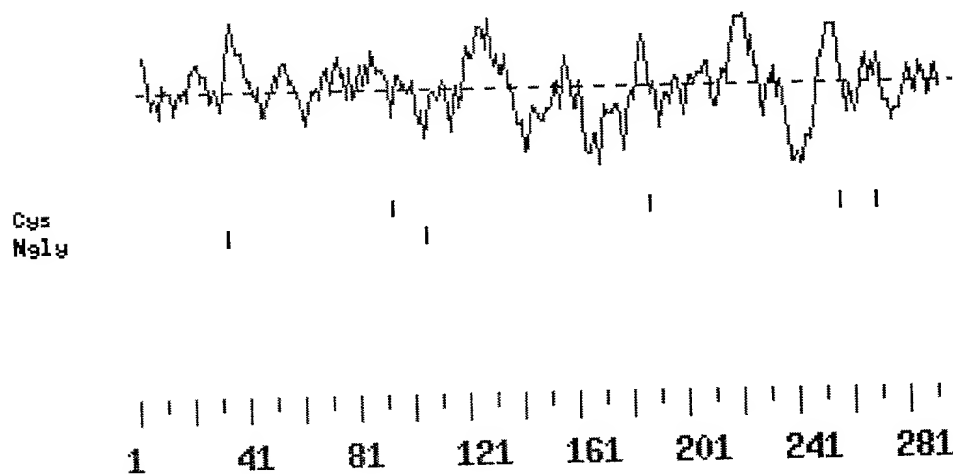


PFAM



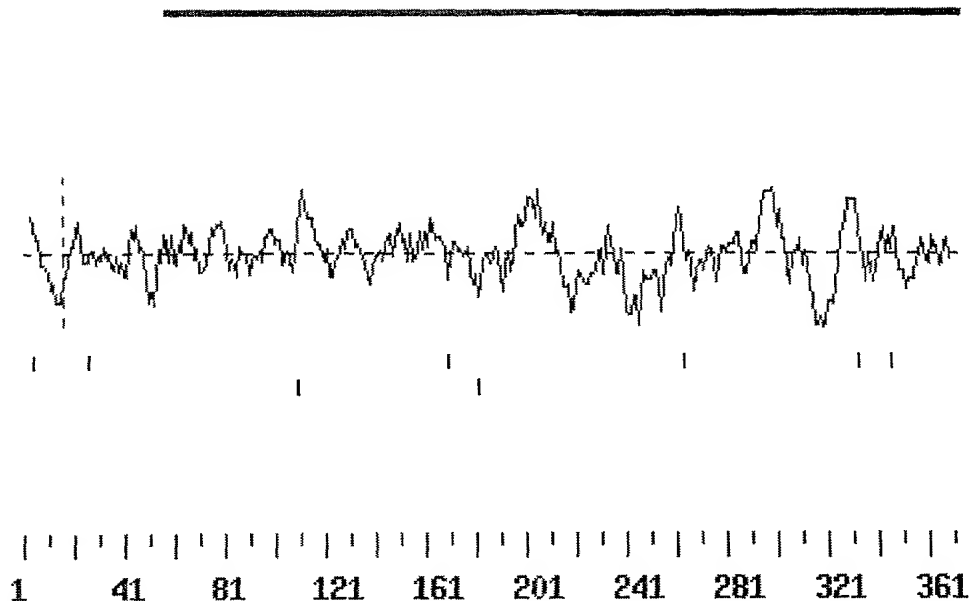
>8Apro

MLAAPINPSDINMIQGNYGLLPELPAVGGNEGVAQVVAVGSNVTGLKPGDWVIPANAGLG
TWRTEAVFSEEALIQVPSDIPLOSAATLGVPCTAYRMLMDFEQLQPGDSVIQNASNSGV
GQAVIQIAAALGLRTINVVRDRPDQKLSDRKSLGAEHVITEEELRRPEMKNFFKDMPQ
PRLALNCVGGKSSTELLRQLARGGTMVTYGGMAKQPVVASVSLIFKDLKLRGFWLSQWK
KDHSPDQFKELILTCLDIRRGQLTAPACSQVPLQDYQSALEASMKPFISSKQILTM

FIGURE 1

PFAM

Cys
Ngly



>8Bpro

MWVCSTLWRVRTPARQWRGLLPASGCHGPAASSYSASAEPARVRALVYGHGDPKVVVEL
 KNLELAAVRGSDVRVKMLAAPINPSDINMIQGNYGLLPELPAVGGNEGVAQVAVGNSVT
 GLKPGDWVIPANAGLGTWRTEAVFSEEALIQVPSDIPLOSAATLGVNPCTAYRMLMDFEQ
 LQPGDSVIQNASNSGVGQAVIQIAAALGLRTINVVRDRPDIQKLSDRKSLGAEHVITEE
 ELRRPEMKNEFFKDMPPRLALNCVGGKSSTELLRQLARGGTMVTYGGMAKQPVVASVSL
 IFKDLKLRGFWLSQWKKDHSPDQFKELILTLCDLIRRGQLTAPACSQVPLQDYQSALEAS
 MKPFISSKQILTM

FIGURE 2

```

adh_zinc: domain 1 of 1, from 1 to 297: score 163.0, E = 5.2e-45
*->pleveevpvpepgpgeVlvkvkaaGiCgsDlhiykggglGlmypgpgd
      1                      aa i++sD+ +++g      y+
8Apro   1    ML-----AAPINPSDINMIQGN---YGLL-- 21

      gthlfpvklPlvlGHEgaGvVeeVGsgVtgfklkvgkfkvGDrVvvlplv
      + lP v+G Eg+ +V++VGs+Vtg      +k+GD V+++ +
8Apro   22  -----PELPAVGGNEGVAQVAVGSNVTG-----LKP GDWVIPANAG 58

      gcCgrgsaeCefCkgsGrenlCpkgratgpgkGlm pndgfggftpkkgga

8Apro   59  L----- 59

      PckGkdgyhfmgdGgfaEYvvvparrndyfvvkiPdgl ddeipleeaeaA
      G++ + +v ++      ++ +P ++      pl      A
8Apro   60  -----GTWRTEAVFSEE----ALIQVPSDI----PLQS---A 85

      allgcaglTaygalvraakvgs lppGdtVlVhGaGGGVGlaAvqlAkaaG
      a lg++ +Tay++l ++++      l+pGd+V      +      GVG+a++q+A a+G
8Apro   86  ATLGVNPNCTAYRMLMDFEQ---LQPGDSVIQNASNSGVGQAVIQIAAALG 132

      AarViavdssed.pekklelAkelGAdldadfvnnskglptvnddrkedf
      +++ +v ++d ++      + l+ +lG      a++v+      ++e
8Apro   133 LRTINVVRDPDiQKLSDR LK-SLG----AEHVIT-----EEELR 167

      veaikeltgGrngagGvDvvldcvGiglggatldaalallkpgGrlvvvG
      ++k +++      + +      +l+c      +gg++      ++l+ l++gG++v+ G
8Apro   168 RPEMKNFFKDM---PQPR LALNC---VGGKSSTELLRQLARGGTMVTYG 210

      pkvavGvpvgggapipl..lllkeeklyersikGsflggrkprlsvlsvd
      G++      ++ +++ l++k      ++++G++l+++k +

8Apro   211 -----GMAKQPVVASVs lLIFKD-----LKL RGFWLSQWKKD----- 242

      ttpdelreal d llasgikdkngkgvldplithtlpp lddsleeaneAfe l
      ++pd ++e++ l ++i+      +g+l      ++p l      + + A+e+
8Apro   243 HSPDQFKELILTLCDLIR----RGQLTAPACSQVP-LQ----DYQSALEA 283

      lesgh.gkvvlip<-*
      ++ ++ k++l++
8Apro   284 SMKPFIsSKQILTM      297

```

FIGURE 3

adh_zinc: domain 1 of 1, from 57 to 373: score 212.3, E = 7.4e-60

```

      *->pleveevpvpepgpgeVlvkvkaaGiCgsDlhiykgglGlmypgpgd
            ++e++  +++  +  +V+vk+aa i++sD+  +++g      y+
8Bpro   57   VVELKNLELAAVRGSDVRVKMLAAPINPSDINMIQGN----YGLL-- 97

            gthlfpvklPlvlGHEgaGvVeeVGsgVtgfklkvvgkfkvGDrVvvlplv
            + 1P v+G Eg+ +V++VGs+Vtg      +k+GD V+++  +
8Bpro   98  -----PELPAVGGNEGVAQVAVGSNVTG-----LKP GDWVIPANAG 134

            gcCgrgsaeCefCkgsGrenlCpkgratgpgkGlm pndgfggftpkkqga

8Bpro  135  L----- 135

            PckGkdgyhfmgdGgfaEYvvvparrndyfvvkiPdgl ddeipleeaeaA
            G++  + +v ++      ++ +P ++      pl      A
8Bpro  136  -----GTWRTEAVFSEE----ALIQVPSDI----PLQS---A 161

            allgcaglTaygalvraakvgs lppGdtVlVhGaGGGVGlaAvqlAkaaG
            a lg++ +Tay++l +++++  l+pGd+V  +  GVG+a++q+A a+G

8Bpro  162  ATLG VNPCTAYRMLMDFEQ---LQPGDSVIQNASNSGVGQAVIQIAAALG 208

            AarViavdssed. pekklelAkelGAdldadfvnnskglptvnddrkedf
            +++ +v  ++d ++  + l+ +lG      a++v+      ++e
8Bpro  209  LRTINVVRDPDiQKLSDR LK-SLG---AEHVIT-----EEELR 243

            veaikeltgGrngagGvDvvl dcvGiglggatldaalallkpgGrlvvvG
            ++k  +++      + +  +l+c      +gg++  ++l+ l++gG++v+ G
8Bpro  244  RPEMKNFFKDM---PQ PRLALNC---VGGKSSTELLRLQ LARGGTMV TYG 286

            pkvavGvpgggapipl..lllkeee klyersikGsflggrkprlsvlsvd
            G++  ++  +++ l++k      +++++G++l+++k  +
8Bpro  287  -----GMAKQP VVASVs lLIFKD-----LKL RGFWLSQWKKD----- 318

            ttpdelreal dllasgikdkngkgvldplithtlpplddsleeaneAfel
            ++pd ++e++  l ++i+      +g+l      ++p l      + + A+e+
8Bpro  319  HSPDQFKELILTLC DLIR----RGQLTAPACSQVP-LQ----DYQSALEA 359

            lesgh.kkvvlip<-*
            ++  ++ k++l++
8Bpro  360  SMKPFIsSKQILTM      373

```

FIGURE 4